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Manufacturers' Shipments, Inventories, and Orders

September 1971

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census

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SUMMARY

New orders for manufactured products in September at $56.9 billion decreased $1.2 billion or 2.0 percent from $58.1 billion in August after seasonal adjustment. Shipments decreased $300 million or 0.6 percent to $57.5 billion from $57.8 billion in August. Unfilled orders decreased $500 million or 0.7 percent to $77.4 billion at the end of September. Manufacturers' inventories increased $100 million to $100.2 billion at the end of August. The inventories to shipments ratio increased from 1.73 to 1.74.

For the 3 months ending in September, the average change in new orders was almost zero compared with a 0.4 percent decrease for the 3 months ending in June and a 1.3 percent increase for the 3 months ending in March.

NEW ORDERS

New orders for durable goods at $30.8 billion decreased $1.0 billion or 3.1 percent over August. New orders for transportation equipment decreased $900 million as the aerospace industries decreased $700 million. New orders for primary metals increased $300 million to $4.5 billion. Among the supplementary series, new orders for defense products decreased $700 million to $1.5 billion and producers' capital goods decreased $300 million in September.

Chart 1 – Manufacturers' New Orders (Seasonally Adjusted)

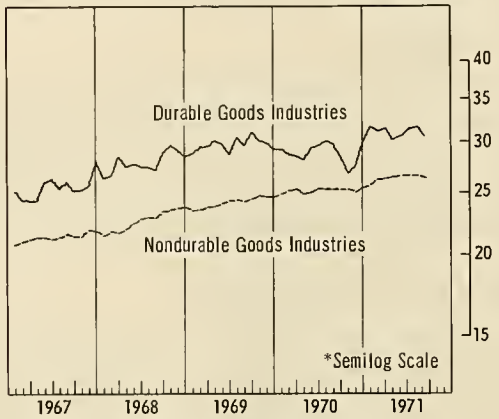
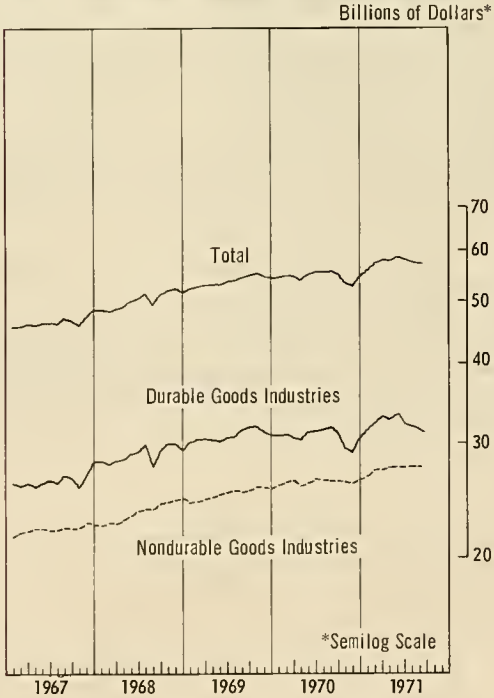


Chart 2 – Manufacturers' Shipments (Seasonally Adjusted)



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SHIPMENTS

Shipments of durable goods decreased $300 million or 0.8 percent to $31.2 billion in September. Shipments of transportation equipment decreased $300 million in contrast to primary metals which increased $300 million. Shipments of nondurable goods decreased $100 million to $26.3 billion.

UNFILLED ORDERS

Unfilled orders for durable goods decreased $400 million to $74.4 billion at the end of September. Unfilled orders for transportation equipment decreased $500 million as primary metals increased $200 million.

INVENTORIES

Inventories of durable goods remained virtually unchanged as inventories of nondurable goods increased $200 million. At the all manufacturing level, materials and supplies decreased $400 million, work in process increased $400 million and finished goods increased $100 million.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for October is scheduled for release on November 19, 1971 and the full report is scheduled for release on December 1.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

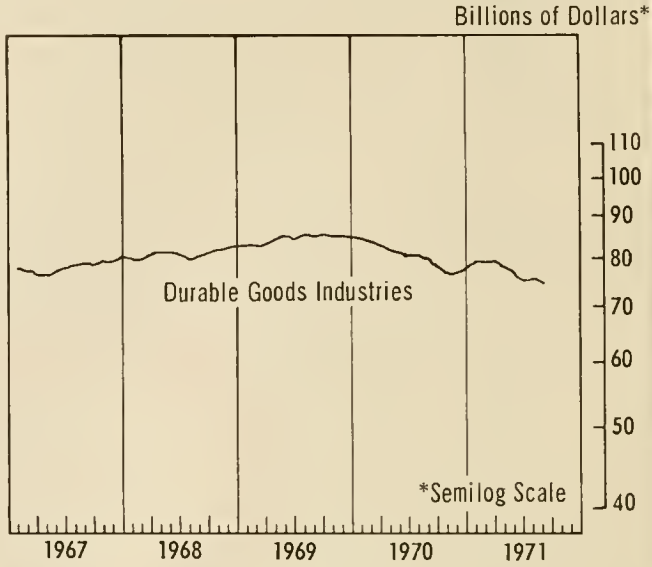

Chart 4 – Total Inventory (Seasonally Adjusted)

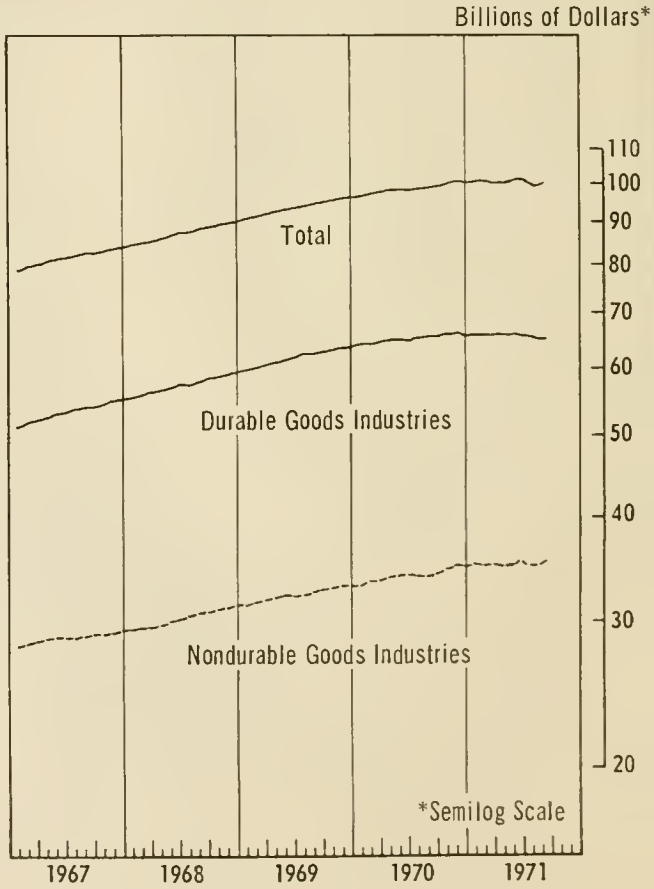

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment[1]			Seasonally adjusted			Without seasonal adjustment		
	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970
	Shipments						Total inventories					
All manufacturing industries:												
Total	57,464	57,804	58,418	59,874	56,321	57,236	100,211	100,063	100,194	99,324	99,754	98,708
Total, excluding transportation	49,868	49,889	50,669	52,241	49,878	50,522	86,729	86,493	86,398	85,752	86,137	84,332
Durable goods industries, total	31,202	31,464	32,123	32,311	29,709	30,815	64,498	64,523	64,692	64,024	64,426	64,497
Stone, clay, and glass products	1,756	1,831	1,793	1,925	1,944	1,617	2,299	2,302	2,293	2,204	2,254	2,188
Primary metals, total	4,252	3,991	5,312	4,218	3,843	4,845	9,177	8,953	8,821	9,116	8,910	8,927
Blast furnaces, steel mills	1,712	1,457	2,940	1,635	1,410	2,301	4,834	4,635	4,464	4,805	4,593	4,771
All other primary metals	2,540	2,534	2,372	2,583	2,433	2,544	4,343	4,318	4,357	4,311	4,317	4,156
Fabricated metal products, total	3,645	3,679	3,437	3,765	3,688	3,735	7,416	7,519	7,510	7,351	7,558	6,891
Metal cans, barrels, and drums	359	351	351	400	404	395	761	800	805	748	817	755
Machinery, except electrical, total	5,023	4,983	4,937	5,169	4,680	4,807	13,692	13,745	13,831	13,526	13,635	13,706
Engines and turbines	296	305	288	324	282	297	937	937	942	930	938	926
Farm machinery and equipment	484	497	480	515	438	426	1,080	1,103	1,138	1,041	1,077	1,108
Construction, mining, and material handling equipment	847	839	781	867	801	856	2,675	2,713	2,713	2,625	2,664	2,493
Metalworking machinery	392	370	386	413	338	348	1,203	1,190	1,193	1,193	1,191	1,228
General industrial machinery	397	416	401	420	416	442	1,146	1,146	1,156	1,131	1,136	1,140
Electrical machinery, total	4,487	4,513	4,434	4,808	4,400	4,672	9,917	9,885	9,920	9,817	9,890	10,137
Electrical transmission and distribution equipment and industrial apparatus	900	892	889	936	851	891	2,212	2,209	2,207	2,193	2,209	2,110
Household appliances, including radio and TV	931	962	929	1,103	1,014	1,090	1,953	1,953	1,956	1,894	1,942	1,941
Communication equipment	1,232	1,231	1,215	1,252	1,176	1,251	2,962	2,921	2,947	2,950	2,924	3,172
Transportation equipment, total	7,596	7,915	7,749	7,633	6,443	6,714	13,482	13,570	13,796	13,572	13,617	14,376
Motor vehicles and parts	5,141	5,303	5,195	5,207	3,923	3,815	3,858	4,015	4,233	4,016	4,127	4,001
Aircraft, missiles, and parts	1,784	1,930	1,933	1,764	1,864	2,194	7,434	7,365	7,416	7,420	7,348	8,482
Instruments and related products	974	969	1,022	1,071	984	1,089	2,362	2,356	2,327	2,341	2,368	2,425
All other durable goods industries	3,469	3,583	3,439	3,722	3,727	3,336	6,153	6,193	6,194	6,097	6,194	5,847
Nondurable goods industries, total	26,262	26,340	26,295	27,563	26,612	26,421	35,713	35,540	35,502	35,300	35,328	34,211
Food and kindred products, total	8,637	8,683	8,739	9,223	8,720	8,885	8,944	8,818	8,791	8,935	8,735	8,322
Meat products	1,862	1,910	1,916	1,887	1,925	2,049	854	853	847	803	781	746
Tobacco products	502	488	491	519	513	482	2,187	2,129	2,142	2,109	2,014	2,101
Textile mill products	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Paper and allied products, total	2,193	2,270	2,187	2,280	2,289	2,148	2,719	2,711	2,744	2,678	2,723	2,679
Pulp, paper, etc.	922	965	899	932	980	896	1,015	1,014	1,019	1,000	1,012	989
Chemicals and allied products, total	4,445	4,305	4,330	4,653	4,329	4,212	6,688	6,729	6,786	6,568	6,679	6,487
Industrial chemicals, except pigments	1,451	1,404	1,477	1,486	1,406	1,307	1,884	1,882	1,899	1,859	1,863	1,908
Petroleum and coal products	2,310	2,293	2,344	2,349	2,320	2,223	2,460	2,471	2,397	2,480	2,468	2,356
Rubber and plastics products, n.e.c.	1,596	1,682	1,637	1,609	1,624	1,482	2,052	2,095	2,153	2,024	2,077	2,086
All other nondurable goods industries	6,579	6,619	6,567	6,930	6,817	6,989	10,663	10,587	10,489	10,506	10,632	10,180
	New orders						Unfilled orders					
All manufacturing industries:												
Total	56,928	58,085	58,255	59,648	56,453	56,093	77,363	77,898	77,615	77,547	77,773	81,018
Total, excluding transportation	49,875	50,162	50,193	52,347	50,047	49,862	53,288	53,280	53,005	53,247	53,141	54,395
Durable goods industries, total	30,759	31,758	31,955	32,189	29,916	29,645	74,437	74,879	74,584	74,641	74,763	78,155
Primary metals, total	4,492	4,184	4,434	4,335	3,905	4,415	5,606	5,366	5,173	5,166	5,051	6,051
Blast furnaces, steel mills	2,026	1,701	2,030	1,853	1,526	2,064	2,883	2,569	2,325	2,514	2,297	2,991
Fabricated metal products	3,520	3,577	3,489	3,693	3,618	3,815	10,734	10,859	10,960	10,759	10,831	10,867
Machinery, except electrical, total	4,935	5,072	4,823	5,048	4,840	4,607	14,271	14,360	14,269	14,299	14,420	14,586
Engines and turbines	284	368	231	311	396	274	4,961	4,974	4,910	4,981	4,994	4,613
Construction, mining, and material handling equipment	840	910	828	838	830	863	2,459	2,466	2,395	2,402	2,431	2,491
Metalworking machinery	381	380	385	388	352	314	1,050	1,061	1,050	1,506	1,081	1,295
General industrial machinery	392	437	379	421	464	408	1,253	1,258	1,237	1,283	1,282	1,145
Electrical machinery, total	4,648	4,584	4,827	5,217	4,455	4,644	14,552	14,393	14,320	14,847	14,437	14,805
Electrical transmission and distribution equipment and industrial apparatus	904	943	1,005	888	874	858	3,986	3,982	3,930	3,945	3,992	3,991
Household appliances, including radio and TV	933	1,008	919	1,113	1,042	1,083	655	654	607	717	707	734
Communication equipment	1,342	1,212	1,437	1,681	1,211	1,339	6,046	5,936	5,955	6,312	5,883	5,917
Transportation equipment, total	7,053	7,923	8,062	7,301	6,406	6,231	24,075	24,618	24,610	24,300	24,632	26,623
Aircraft, missiles, and parts	1,299	1,985	2,404	1,449	1,802	1,945	17,410	17,895	17,840	17,559	17,874	20,770
All other durable goods industries	6,111	6,418	6,320	6,595	6,692	5,933	5,199	5,283	5,252	5,270	5,392	5,223
Nondurable goods industries, total	26,169	26,327	26,300	27,459	26,537	26,448	2,926	3,019	3,031	2,906	3,010	2,863
Industries with unfilled orders	6,991	7,201	7,022	7,291	7,171	6,912	2,926	3,019	3,031	2,906	3,010	2,863
Industries without unfilled orders	19,178	19,126	19,278	20,168	19,366	19,536	-	-	-	-	-	-

- Represents zero. [p]Preliminary. [r]Revised.

[1]Adjusted for trading-day and calendar-month variations.

[2]Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment[1]			Seasonally adjusted			Without seasonal adjustment		
	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970
	Shipments						Total inventories					
All manufacturing industries, total..	57,464	57,804	58,418	59,874	56,321	57,236	100,211	100,063	100,194	99,324	99,754	98,708
Durable goods industries, total.....	31,202	31,464	32,123	32,311	29,709	30,815	64,498	64,523	64,692	64,024	64,426	64,497
Nondurable goods industries, total.....	26,262	26,340	26,295	27,563	26,612	26,421	35,713	35,540	35,502	35,000	35,328	34,211
Industry groups arranged by market categories:												
Home goods and apparel.....	5,229	5,322	5,295	5,758	5,768	5,837	10,790	10,726	10,660	10,572	10,735	10,189
Consumer staples.....	11,254	11,279	11,218	12,012	11,338	11,492	13,895	13,659	13,599	13,809	13,530	13,067
Equipment and defense products, except automotive.....	8,347	8,484	8,336	8,526	8,115	8,451	25,364	25,372	25,479	25,098	25,221	26,042
Automotive equipment.....	5,707	5,889	5,749	5,793	4,486	4,514	5,010	5,198	5,396	5,120	5,263	5,119
Construction materials, supplies, and intermediate products.....	5,170	5,334	5,154	5,565	5,600	4,870	8,195	8,200	8,085	8,029	8,141	7,648
Other materials and supplies and intermediate products.....	21,757	21,496	22,666	22,220	21,014	22,072	36,957	36,908	36,975	36,696	36,864	36,643
Supplementary series:[2]												
Household durable goods industries.....	2,374	2,419	2,328	2,695	2,562	2,477	4,910	4,917	4,935	4,823	4,928	4,767
Producers' capital goods industries.....	6,474	6,435	6,304	6,671	6,088	6,125	17,487	17,501	17,546	17,309	17,403	17,098
Defense products industries (old series).	3,379	3,584	3,548	3,372	3,435	3,882	11,279	11,191	11,308	11,235	11,168	12,584
Defense products (new series)*.....	1,761	2,077	2,010	1,748	2,003	2,103	5,408	5,282	5,488	5,374	5,260	6,916
	New orders						Unfilled orders					
All manufacturing industries, total..	56,928	58,085	58,255	59,648	56,453	56,093	77,363	77,898	77,615	77,547	77,773	81,018
Durable goods industries, total.....	30,759	31,758	31,955	32,189	29,916	29,645	74,437	74,879	74,584	74,641	74,763	78,155
Nondurable goods industries, total.....	26,169	26,327	26,300	27,459	26,537	26,448	2,926	3,019	3,031	2,906	3,010	2,863
Industry groups arranged by market categories:												
Home goods and apparel.....	5,239	5,361	5,360	5,760	5,793	5,814	2,162	2,163	2,120	2,263	2,262	2,071
Consumer staples.....	11,242	11,282	11,223	12,011	11,340	11,498						
Equipment and defense products, except automotive.....	7,797	8,509	8,871	8,418	8,216	8,121	42,579	43,091	43,091	43,070	43,124	44,119
Automotive equipment.....	5,746	5,863	5,781	5,845	4,493	4,467						
Construction materials, supplies, and intermediate products.....	5,012	5,209	5,306	5,446	5,489	4,999	10,300	10,456	10,580	10,367	10,485	10,403
Other materials and supplies and intermediate products.....	21,892	21,861	21,714	22,168	21,122	21,194	22,322	22,188	21,824	21,847	21,902	24,425
Supplementary series:[2]												
Household durable goods industries.....	2,390	2,457	2,401	2,701	2,602	2,469	1,802	1,786	1,747	1,904	1,899	1,734
Producers' capital goods industries.....	6,253	6,551	6,146	6,387	6,282	5,720	22,763	22,986	22,867	22,848	23,131	22,459
Defense products industries (old series).	2,939	3,634	4,246	3,444	3,411	3,704	24,095	24,535	24,486	24,499	24,427	27,351
Defense products (new series)*.....	1,473	2,154	2,900	1,791	2,046	2,483	18,889	19,177	19,101	19,200	19,157	19,967

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. [p]Preliminary. [r]Revised. [1]Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. [2]The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month 1971			Average monthly rates of change				Average, 1965-1970	
				3 months			12 months		
	Aug.-Sept.	July-Aug.	June-July	June-Sept. 1971	Mar.-June 1971	Dec. 1970-Mar. 1971	Sept. 1970-Sept. 1971	Average rise	Average decline
Shipments:									
All manufacturing industries.....	-0.6	-1.1	-1.0	-0.9	+0.7	+2.0	+0.4	+1.1	-1.2
Durable goods industries, total.....	-0.8	-2.1	-1.6	-1.5	+1.1	+2.7	+0.4	+1.8	-1.8
Nondurable goods industries, total.....	-0.3	+0.2	-0.2	-0.1	+0.2	+1.2	+0.4	+1.0	-0.6
Total inventories:									
All manufacturing industries.....	+0.1	-0.1	-0.3	-0.1	0	0	+0.1	+0.7	-0.3
New orders:									
All manufacturing industries.....	-2.0	-0.3	+2.2	0	-0.4	+1.3	+0.5	+1.9	-1.4
Durable goods industries, total.....	-3.1	-0.6	+4.2	+0.2	-0.9	+1.5	+0.8	+3.2	-2.3
Nondurable goods industries, total.....	-0.6	+0.1	-0.2	-0.2	+0.1	+1.2	+0.3	+1.0	-0.6
Unfilled orders:									
Durable goods industries, total.....	-0.6	+0.4	-0.2	-0.1	-1.9	+0.7	-0.4	+1.1	-0.7

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1971[p]	Aug. 1971[r]	Sept. 1970
	Total						Materials and supplies					
All manufacturing industries, total..	100,211	100,063	100,194	99,324	99,754	98,708	32,352	32,736	32,921	32,404	32,820	31,418
Durable goods industries, total.....	64,498	64,523	64,692	64,024	64,426	64,497	19,271	19,709	19,932	19,539	19,984	19,095
Stone, clay, and glass products.....	2,299	2,302	2,293	2,204	2,254	2,188	755	758	750	754	756	733
Primary metals.....	9,177	8,953	8,821	9,116	8,910	8,927	3,487	3,436	3,403	3,595	3,522	3,375
Machinery (electrical and nonelectrical).	23,609	23,630	23,751	23,343	23,525	23,843	6,390	6,496	6,570	6,381	6,534	6,288
Transportation equipment.....	13,482	13,570	13,796	13,572	13,617	14,376	2,822	3,012	3,166	2,939	3,077	3,244
All other durable goods industries.....	15,931	16,068	16,031	15,789	16,120	15,163	5,817	6,007	6,043	5,870	6,095	5,455
Nondurable goods industries, total.....	35,713	35,540	35,502	35,300	35,328	34,211	13,081	13,027	12,989	12,865	12,836	12,323
Chemicals and allied products.....	6,688	6,729	6,786	6,568	6,679	6,487	2,339	2,357	2,357	2,318	2,353	2,248
Petroleum and coal products.....	2,460	2,471	2,397	2,480	2,468	2,356	566	588	579	562	586	541
Rubber and plastics products, n.e.c.....	2,052	2,095	2,153	2,024	2,077	2,086	613	639	646	627	661	705
All other nondurable goods industries....	24,513	24,245	24,166	24,228	24,104	23,282	9,563	9,443	9,407	9,358	9,236	8,829
	Work in process						Finished goods					
All manufacturing industries, total..	33,749	33,322	33,321	33,573	33,319	34,512	34,110	34,005	33,952	33,347	33,615	32,778
Durable goods industries, total.....	28,539	28,214	28,177	28,373	28,155	29,448	16,688	16,600	16,583	16,112	16,287	15,954
Stone, clay, and glass products.....	308	309	304	288	297	301	1,236	1,235	1,239	1,162	1,201	1,154
Primary metals.....	3,115	3,024	2,960	3,055	2,982	3,060	2,575	2,493	2,458	2,466	2,406	2,492
Machinery (electrical and nonelectrical).	10,623	10,555	10,605	10,540	10,532	11,170	6,596	6,579	6,576	6,422	6,459	6,385
Transportation equipment.....	9,272	9,158	9,243	9,292	9,161	9,727	1,388	1,400	1,387	1,341	1,379	1,405
All other durable goods industries.....	5,221	5,168	5,065	5,198	5,183	5,190	4,893	4,893	4,923	4,721	4,842	4,518
Nondurable goods industries, total.....	5,210	5,108	5,144	5,200	5,164	5,064	17,422	17,405	17,369	17,235	17,328	16,824
Chemicals and allied products.....	877	862	908	876	858	844	3,472	3,510	3,521	3,374	3,468	3,395
Petroleum and coal products.....	463	457	446	466	454	446	1,431	1,426	1,372	1,452	1,428	1,369
Rubber and plastics products, n.e.c.....	327	320	342	336	329	334	1,112	1,136	1,165	1,061	1,087	1,047
All other nondurable goods industries....	3,543	3,469	3,448	3,522	3,523	3,440	11,407	11,333	11,311	11,348	11,345	11,013

[p]Preliminary.
[r]Revised.

Chart 5 – Ratio of Manufacturers' Inventories to Shipments and Unfilled Orders to Shipments, Durable Goods Industries (Seasonally Adjusted)

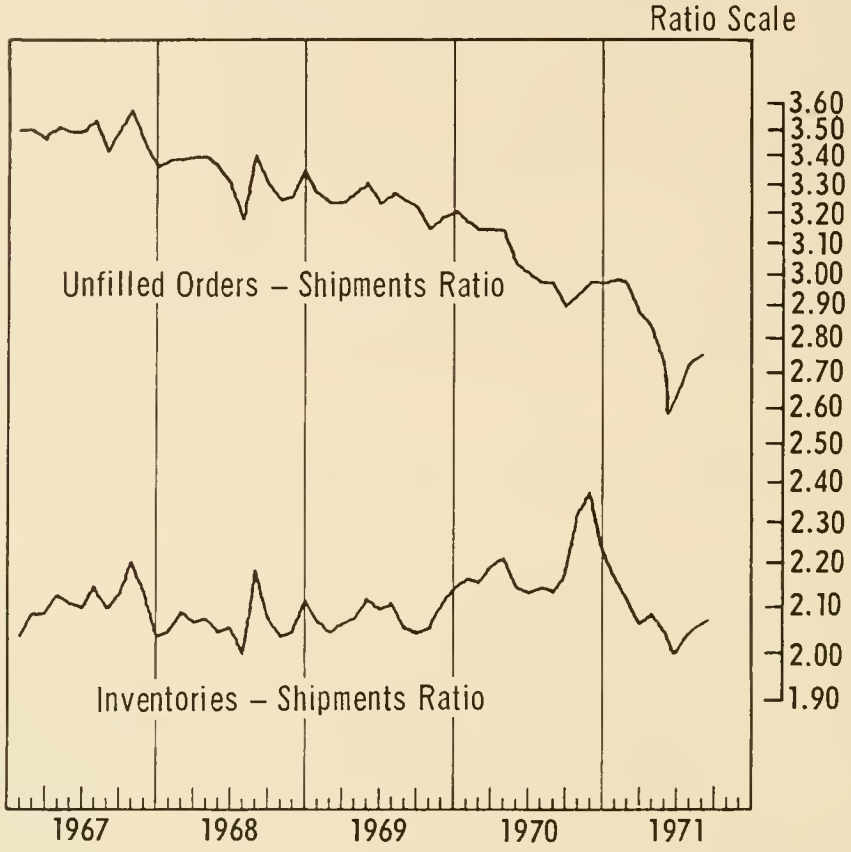

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio[1] (months' backlog)			
	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1970	Sept. 1971[p]	Aug. 1971[r]	July 1971	Sept. 1970
All manufacturing industries, total	1.74	1.73	1.72	1.81	2.27	2.26	2.27	2.41
Durable goods industries, total	2.07	2.05	2.01	2.17	2.75	2.74	2.74	2.89
Stone, clay, and glass products	1.31	1.26	1.28	1.55	(NA)	(NA)	(NA)	(NA)
Primary metals	2.16	2.24	1.66	1.84	1.32	1.34	0.97	1.34
Fabricated metals	2.03	2.04	2.19	1.92	3.27	3.26	3.55	3.32
Machinery, except electrical	2.73	2.76	2.80	2.96	2.84	2.88	2.89	3.11
Electrical machinery	2.21	2.19	2.24	2.35	3.24	3.19	3.23	3.33
Transportation equipment	1.77	1.71	1.78	2.11	5.99	5.68	5.90	6.00
Instruments and related products	2.43	2.43	2.28	2.47	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total	1.36	1.35	1.35	1.37	0.41	0.42	0.43	0.44
Food and kindred products	1.04	1.02	1.01	1.00	(X)	(X)	(X)	(X)
Tobacco products	4.36	4.36	4.36	4.67	(X)	(X)	(X)	(X)
Textile mill products	(2)	(2)	(2)	(2)	(NA)	(NA)	(NA)	(NA)
Paper and allied products	1.24	1.19	1.25	1.32	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products	1.50	1.56	1.57	1.64	(X)	(X)	(X)	(X)
Petroleum and coal products	1.06	1.08	1.02	1.07	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.	1.29	1.25	1.32	1.44	(X)	(X)	(X)	(X)

(NA) Not available. [p]Preliminary. [r]Revised. (X) Not applicable.

[1]Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

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definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of paritial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.